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LISTING OF CLAIMS:

Please amend the claims as follows:

- 1 1. (Original) A method for displaying a quality of a wireless transmission comprising:
2 receiving the wireless data transmission wherein the wireless data transmission originates
3 from multiple transmit antennae;
4 determining the quality of the wireless data transmission based on a quality parameter of
5 the wireless transmission; and
6 displaying the quality of the wireless data transmission.
- 1 2 (Original) The method of claim 1 wherein the wireless data transmission comprises multiple
2 streams of data and determining the quality of the wireless data transmission based on a quality
3 parameter of the wireless data transmission comprises:
4 determining a value of the quality parameter for each of the multiple streams of data.
- 1 3. (Original) The method of claim 1 wherein the wireless data transmission comprises multiple
2 streams of data and determining the quality of the wireless data transmission based on a quality
3 parameter of the wireless transmission comprises:
4 determining an aggregate value of the quality parameter for the multiple streams of data.
- 1 4. (Original) The method of claim 2 wherein the quality parameter is selected from a group
2 consisting of bit error rate, packet error rate and a frame error rate.
- 1 5. (Original) The method of claim 3 wherein the quality parameter is selected from a group
2 consisting of bit error rate, packet error rate and a frame error rate.
- 1 6. (Original) The method of claim 2 wherein the quality parameter is selected from a group
2 consisting of a signal-to-noise ration, a carrier-to-interference ratio and a signal-to-interference
3 plus noise ratio.

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- 1 7. (Original) The method of claim 3 wherein the quality parameter is selected from a group
2 consisting of a signal to noise ratio, a carrier to interference ratio and a signal to interference plus
3 noise ratio.
- 1 8. (Original) The method of claim 2 wherein the quality parameter comprises the number of
2 cyclic redundancy check failures.
- 1 9. (Original) The method of claim 3 wherein the quality parameter comprises the number of
2 cyclic redundancy check failures.
- 1 10. (Original) The method of claim 1 wherein the wireless data transmission comprises multiple
2 streams of data and determining the quality of the wireless data transmission based on a quality
3 parameter of the wireless data transmission comprises:
4 determining a propagation channel for the wireless data transmission; and
5 determining a value for the quality parameter based on the propagation channel.
- 1 11. (Original) The method of claim 10 wherein the quality parameter is selected from a group
2 consisting of a bit error rate of each of the multiple streams of data, a packet error rate of each of
3 the multiple streams of data, a frame error rate of each of the multiple streams of data.
- 1 12. (Original) The method of claim 10 wherein the quality parameter is selected from a group
2 consisting of a bit error rate of the multiple streams of data, a packet error rate of the multiple
3 streams of data, a frame error rate of the multiple streams of data.
- 1 13. (Original) The method of claim 10 wherein the quality parameter is selected from a group
2 consisting of signal-to-noise ratio of each of the multiple streams of data, a carrier-to-noise ratio
3 of each of the multiple streams of data, and a signal-to-interference plus noise ratio of each of the
4 multiple streams of data.

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1 14. (Original) The method of claim 10 wherein the quality parameter is selected from a group
2 consisting of signal-to-noise ratio of the multiple streams of data, a carrier-to-noise ratio of the
3 multiple streams of data, and a signal-to-interference plus noise ratio of the multiple streams of
4 data.

1 15. (Original) The method of claim 10 wherein the quality parameter is selected from a group
2 consisting of a channel condition number, a delay spread, a time variance, and a frequency
3 variance.

1 16. (Withdrawn) A method for displaying a quality of a wireless data transmission
2 comprising:
3 receiving the wireless data transmission wherein the wireless data transmission originates
4 from a communication system comprising multiple transmit antennae and multiple receive
5 antennae;
6 determining the quality of the wireless data transmission based on a quality parameter of
7 the wireless data transmission; and
8 displaying the quality of the wireless data transmission.

1 17. (Withdrawn) The method of claim 16 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless data transmission comprises:
4 Determining a value of the quality parameter for each of the multiple streams of data.

1 18. (Withdrawn) The method of claim 16 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless transmission comprises:
4 Determining an aggregate value of the quality parameter for the multiple streams of data.

1 19. (Withdrawn) The method of claim 17 wherein the quality parameter is selected from a
2 group consisting of a bit error rate, a packet error rate and a frame error rate.

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1 20. (Withdrawn) The method of claim 18 wherein the quality parameter is selected from a
2 group consisting of a bit error rate, a packet error rate and a frame error rate.

1 21. (Withdrawn) The method of claim 17 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 22. (Withdrawn) The method of claim 18 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 23. (Withdrawn) The method of claim 17 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 24. (Withdrawn) The method of claim 18 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 25. (Withdrawn) The method of claim 16 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless data transmission comprises:

4 Determining a propagation channel for the wireless data transmission; and

5 Determining a value for the quality parameter based on the propagation channel.

1 26. (Withdrawn) The method of claim 25 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of each of the multiple streams of data, a packet error rate of
3 each of the multiple streams of data, a frame error rate of each of the multiple streams of data.

1 27. (Withdrawn) The method of claim 25 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of the multiple streams of data, a packet error rate of
3 the multiple streams of data, a frame error rate of the multiple streams of data.

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1 28. (Withdrawn) The method of claim 25 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of each of the multiple streams of data, a carrier-to-
3 noise ratio of each of the multiple streams of data, and a signal-to-interference plus noise ratio of
4 each of the multiple streams of data.

1 29. (Withdrawn) The method of claim 25 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of the multiple streams of data, a carrier-to-noise ratio
3 of the multiple streams of data, and a signal-to-interference plus noise ratio of the multiple
4 streams of data.

1 30. (Withdrawn) The method of claim 25 wherein the quality parameter is selected from a
2 group consisting of a channel condition number, a delay spread, a time variance, and a frequency
3 variance.

1 31. (Withdrawn) A method for displaying a quality of a wireless data transmission
2 comprising:
3 Receiving the wireless data transmission wherein the wireless data transmission
4 originates from a spatial multiplexing system;
5 Determining the quality of the wireless data transmission based on a quality parameter of
6 the wireless data transmission; and
7 displaying the quality of the wireless data transmission.

1 32. (Withdrawn) The method of claim 31 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless data transmission comprises:
4 determining a value of the quality parameter for each of the multiple streams of data.

1 33. (Withdrawn) The method of claim 31 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless transmission comprises:

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4 Determining an aggregate value of the quality parameter for the multiple streams of data.

1 34. (Withdrawn) The method of claim 32 wherein the quality parameter is selected from a
2 group consisting of a bit error rate, a packet error rate and a frame error rate.

1 35. (Withdrawn) The method of claim 32 wherein the quality parameter is selected from a
2 groups consisting of a bit error rate, a packet error rate and a frame error rate.

1 36. (Withdrawn) The method of claim 32 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 37. (Withdrawn) The method of claim 33 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 38. (Withdrawn) The method of claim 32 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 39. (Withdrawn) The method of claim 33 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 40. (Withdrawn) The method of claim 31 wherein the wireless data transmission comprises
2 multiple streams of data and determining the quality of the wireless data transmission based on a
3 quality parameter of the wireless data transmission comprises:
4 determining a propagation channel for the wireless data transmission; and
5 determining a value for the quality parameter based on the propagation channel.

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1 41. (Withdrawn) The method of claim 40 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of each of the multiple streams of data, a packet error rate of
3 each of the multiple streams of data, a frame error rate of each of the multiple streams of data.

1 42. (Withdrawn) The method of claim 40 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of the multiple streams of data, a packet error rate of the
3 multiple streams of data, a frame error rate of the multiple streams of data.

1 43. (Withdrawn) The method of claim 40 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of each of the multiple streams of data, a carrier-to-
3 interference ratio of each of the multiple streams of data, and a signal-to-interference plus noise
4 ratio of each of the multiple streams of data.

1 44. (Withdrawn) The method of claim 40 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of the multiple streams of data, a carrier-to-
3 interference ratio of the multiple streams of data, and a signal-to-interference plus noise ratio of
4 the multiple streams of data.

1 45. (Withdrawn) The method of claim 40 wherein the quality parameter is selected from a
2 group consisting of a channel condition number, a delay spread, a time variance, and a frequency
3 variance.

1 46. (Currently Amended) An apparatus for displaying [the] a quality of a wireless data
2 transmission comprising:
3 means for receiving the wireless data transmission wherein the wireless data transmission
4 originates from multiple transmit antennae;
5 means for determining the quality of the wireless data transmission based on a quality
6 parameter of the wireless data transmission; and
7 means for displaying the quality of the wireless data transmission.

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1 47. (Original) The apparatus of claim 46 wherein the wireless data transmission comprises
2 multiple streams of data and the means for determining the quality of the wireless data
3 transmission based on a quality parameter of the wireless data transmission further comprises:
4 means for determining a value of the quality parameter for each of the multiple streams
5 of data transmission.

1 48. (Original) The apparatus of claim 46 wherein the means for determining the quality of the
2 wireless data transmission based on a quality parameter of the wireless data transmission further
3 comprises:
4 means for determining an aggregate value of the quality parameter for the multiple
5 streams of data.

1 49. (Original) The apparatus of claim 47 wherein the means for displaying the quality of the
2 wireless transmission comprises means for displaying the value.

1 50. (Original) The apparatus of claim 48 wherein means for displaying the quality of the
2 wireless transmission comprises means for displaying the aggregate value.

1 51. (Original) The apparatus of claim 49 wherein the means for displaying the value comprises
2 LED indicators.

1 52. (Original) The apparatus of claim 49 wherein the means for displaying the value comprises
2 an analog meter.

1 53. (Original) The apparatus of claim 50 wherein the means for displaying the value comprises
2 separate sets of LED indicators wherein each of the separate sets of LED indicators corresponds
3 to each of the multiple streams of data.

1 54. (Original) The apparatus of claim 50 wherein the means for displaying the aggregate value
2 comprises an analog meter.

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1 55. (Currently Amended) The apparatus of claim 49 wherein the quality parameter comprises
2 a channel quality parameter and a data quality parameter and the means for displaying the value
3 of the quality parameter comprises a first and second analog meter wherein the first analog meter
4 displays [the] a value of the channel quality parameter and the second analog meter displays
5 [the] a value of the data quality parameter.

1 56. (Currently Amended) The apparatus of claim 49 wherein the quality parameter comprises
2 a channel quality parameter and a data quality parameter and the means for displaying the value
3 of the quality parameter comprises a first and second set of LED indicators wherein the first set
4 of LED indicators corresponds to the channel quality parameter and the second set of [Led] LED
5 indicators corresponds to the data quality parameter.

1 57. (Withdrawn) A wireless communication system comprising:
2 a base transceiver station wherein the base transceiver station includes a multiple transmit
3 antennae array;
4 means for receiving a wireless data transmission from the multiple transmit antennae
5 array;
1 means for determining a quality of the wireless data transmission based on a quality
2 parameter of the wireless data transmission; and
3 means for displaying the quality of the wireless data transmission.

1 58. (Withdrawn) The system of claim 57 wherein the wireless data transmission comprises
2 multiple streams of data and the means for determining the quality of the wireless data
3 transmission based on a quality parameter of the wireless data transmission comprises:
4 means for determining a value of the quality parameter for each of the multiple streams
5 of data.

1 59. (Withdrawn) The system of claim 57 wherein the wireless data transmission comprises
2 multiple streams of data and the means for determining the quality of the wireless data
3 transmission based on a quality parameter of the wireless transmission comprises:

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4 Means for determining an aggregate value of the quality parameter for the multiple
5 streams of data.

1 60. (Withdrawn) The system of claim 58 wherein the quality parameter is selected from a
2 group consisting of a bit error rate, a packet error rate and a frame error rate.

1 61. (Withdrawn) The system of claim 59 wherein the quality parameter is selected from a
2 group consisting of a bit error rate, a packet error rate and a frame error rate.

1 62. (Withdrawn) The system of claim 58 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 63. (Withdrawn) The system of claim 59 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-
3 interference plus noise ratio.

1 64. (Withdrawn) The system of claim 58 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 65. (Withdrawn) The system of claim 59 wherein the quality parameter comprises the
2 number of cyclic redundancy check failures.

1 66. (Withdrawn) The system of claim 57 wherein the wireless data transmission comprises
2 multiple streams of data and the means for determining the quality of the wireless data
3 transmission based on a quality parameter of the wireless data transmission comprises:
4 Means for determining a propagation channel for the wireless data transmission; and
5 Means for determining a value for the quality parameter based on the propagation
6 channel.

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1 67. (Withdrawn) The system of claim 66 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of each of the multiple streams of data, a packet error rate of
3 each of the multiple streams of data and a frame error rate of each of the multiple streams of
4 data.

1 68. (Withdrawn) The system of claim 66 wherein the quality parameter is selected from a
2 group consisting of a bit error rate of the multiple streams of data, a packet error rate of the
3 multiple streams of data and a frame error rate of the multiple streams of data.

1 69. (Withdrawn) The system of claim 66 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of each of the multiple streams of data, a carrier-to-
3 interference ratio of each of the multiple streams of data and a signal-to-interference plus noise
4 ratio of each of the multiple streams of data.

1 70. (Withdrawn) The system of claim 66 wherein the quality parameter is selected from a
2 group consisting of a signal-to-noise ratio of the multiple streams of data, a carrier-to-
3 interference ratio of the multiple streams of data and a signal-to-interference plus noise ratio of
4 the multiple streams of data.

1 71. (Withdrawn) The system of claim 66 wherein the quality parameter is selected from a
2 group consisting of a channel condition number, a delay spread, a time variance, and a frequency
3 variance.

1 72. (Withdrawn) A wireless communication system comprising:
2 A base transceiver station wherein the base transceiver station includes a multiple
3 transmit antennae array;
4 A multiple receive antennae array for receiving a wireless data transmission from the
5 multiple transmit antennae array;
6 Means for determining a quality of the wireless data transmission based on a quality
7 parameter of the wireless data transmission; and

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8 Means for displaying the quality of the wireless data transmission.

1 73. (Withdrawn) A wireless communication system comprising:

2 A base transceiver station wherein the base transceiver station implements a spatial
3 multiplexing technology;

4 Means for receiving a wireless data transmission from the base station;

5 Means for determining a quality of the wireless data transmission based on a quality
6 parameter of the wireless data transmission; and

7 Means for displaying the quality of the wireless data transmission.

1 74. (Previously presented) A method according to claim 1, wherein the multiple streams
2 comprising the wireless data transmission are received via two or more receive antennae.

1 75. (Previously presented) An apparatus according to claim 49, further comprising:
2 two or more receive antennae through which the means for receiving receives multiple
3 streams of the wireless transmission.

1 76. (Previously presented) An apparatus comprising:
2 a receiver, to receive a wireless transmission wherein the wireless transmission originates
3 from multiple transmit antennae; and
4 a quality display unit, responsive to if not embedded within the receiver, to determine a
5 quality of the received wireless data transmission based, at least in part, on an ascertained one or
6 more quality parameter(s) associated with the wireless data transmission, and to provide a
7 display of such quality of the wireless data transmission.

1 77. (Previously presented) An apparatus according to claim 76, the quality display unit
2 comprising:
3 a quality indicator processor, responsive to a channel estimator in the receiver, to
4 determine a quality of the received wireless data transmission.

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1 78. (Previously presented) An apparatus according to claim 77, the quality display unit
2 comprising:
3 a display, responsive to the quality indicator processor, to display the quality of the
4 wireless data transmission.

1 79. (Previously presented) An apparatus according to claim 76, wherein the wireless
2 transmission is comprised of a multiple spatial streams.

1 80. (Previously presented) An apparatus according to claim 79, the quality display unit to
2 determine a quality value for each of the multiple spatial streams and to display at least a subset
3 of the determined quality values.

1 81. (Previously presented) An apparatus according to claim 79, the quality display unit to
2 display a representation of a mathematical combination of the determined quality values for each
3 of the multiple spatial streams.

1 82. (Previously presented) An apparatus according to claim 76, further comprising:
2 two or more receive antennae through which the receiver receives the wireless
3 transmission.

1 83. (Previously presented) An apparatus according to claim 76, wherein the determined
2 quality comprises a channel quality parameter and a data quality parameter, the quality display
3 unit including a first and second set of indicators, wherein the first set of indicators to display a
4 representation of the channel quality parameter and the second set of indicators to display a
5 representation of the data quality parameter.

1 84. (Previously presented) A system comprising:
2 two or more antennae responsive to a wireless transmission;
3 a receiver, responsive to the two or more antennae, to receive a wireless transmission
4 wherein the wireless transmission originates from multiple transmit antennae, to determine a

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5 quality of the received wireless data transmission based, at least in part, on an ascertained one or
6 more quality parameter(s) associated with the wireless data transmission; and
7 a display, responsive to the receiver, to provide a display of such quality of the wireless
8 data transmission.

1 85. (Previously presented) A system according to claim 84, wherein the wireless transmission
2 is comprised of a multiple spatial streams.

1 86. (Previously presented) A system according to claim 85, the receiver to determine a quality
2 value for each of the multiple spatial streams and to display at least a subset of the determined
3 quality values.

1 87. (Previously presented) A system according to claim 85, the receiver to display a
2 representation of a mathematical combination of the determined quality values for each of the
3 multiple spatial streams.

1 88. (Previously presented) A system according to claim 84, wherein the determined quality
2 comprises a channel quality parameter and a data quality parameter, the quality display unit
3 including a first and second set of indicators, the first set of indicators to display a representation
4 of the channel quality parameter and the second set of indicators to display a representation of
5 the data quality parameter.

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